What is claimed is:

1. A method, comprising

configuring one or more sensors on a vehicle collectively to detect two or more operating

parameters of the vehicle;

wirelessly transmitting signals representative of the two or more operating parameters from

the one or more sensors to a processor on the vehicle; and

performing diagnostic or prognostic analysis on the signals with the processor.

2. The method of claim 1, wherein the analysis yields a result that is indicated to an

operator of the vehicle.

3. The method of claim 1:

wherein the analysis yields a result; and

further comprising wirelessly communicating the result to a vehicle management facility.

4. The method of claim 3, wherein the wirelessly communicating is via a cellular

telephone network.

5. The method of claim 1, wherein the wirelessly communicating is via a satellite link.

6. The method of claim 3, further comprising the vehicle management facility

controlling maintenance or repair resources based on the result.

7. The method of claim 1:

wherein the analysis yields a result; and

further comprising wirelessly communicating the results from a plurality of vehicles to a vehicle information management facility.

8. The method of claim 7, wherein the facility stores the results from the plurality of vehicles.

9. The method of claim 7, wherein the facility analyzes the results from the plurality of vehicles.

10. An apparatus, comprising

a first number of sensors collectively configured to provide data signals indicative of one or more operating parameters of a machine, where the first number is at least one;

a second number of semi-passive RF tags, coupled to the first number of sensors effectively to transmit the data signals, where the second number is at least one; and

one or more data collection devices that interrogate the semi-passive RF tags to read the data signals.

11. The apparatus of claim 10, wherein the first number is at least two.

12. The apparatus of claim 10, wherein the second number is at least two.

13. The apparatus of claim 10, wherein the data signals are indicative of two or more operating parameters of the machine.

14. The apparatus of claim 10, further comprising a processor, in communication with said one or more data collection devices, that processes the one or more operating parameters indicated by the data signals.

15. The apparatus of claim 10, wherein the second number is less than the first number.

16. A method for monitoring vehicles, comprising:

acquiring two or more operating parameters of a vehicle using one or more sensors on the vehicle;

wirelessly transmitting a first signal representative of a first number of the operating parameters to a first receiver on the vehicle, where the first number is at least two;

wirelessly transmitting a second signal representative of a second number of the operating parameters via cellular telephone connection to a remote receiver, where the second number is at least one; and

processing the operating parameters with a remote processor in communication with the remote receiver.

17. The method of claim 16 wherein the first number is greater than the second number.

18. The method of claim 17, further comprising selecting with an on-board processor on the vehicle which of the first number of operating parameters are re-transmitted.

19. The method of claim 18, wherein the selecting is performed based on the value of one or more of the first number of parameters.

20. The method of claim 18:

further comprising transmitting a third signal from the remote processor to the on-board processor;

wherein the selecting is performed based on the content of the third signal.

21. The method of claim 16, further comprising receiving a third signal at the vehicle from the remote processor, where the third signal is responsive to the second signal.

22. The method of claim 21:

further comprising transmitting a fourth signal from the vehicle to the remote processor;

wherein the third signal is a request for additional data, and

wherein the fourth signal represents the additional data.

23. The method of claim 22, wherein the additional data includes at least one of the first number of parameters.

24. The method of claim 22, wherein the additional data includes at least one parameter that is not in the first number of parameters.

25. The method of claim 21, wherein the third signal represents a result of prognostic analysis.

26. The method of claim 21, wherein the third signal represents a result of diagnostic analysis.

27. A system, comprising:

a vehicle subsystem mounted on a vehicle, comprising:

one or more sensors collectively detecting two or more operating parameters

of the vehicle;

a first receiver;

a first set of signals, wirelessly received by the first receiver, that are

collectively representative of the two or more operating parameters;

a first transmitter;

a first processor, in communication with the first receiver and the first

transmitter, configured to process the two or more operating parameters; and

a second signal, wirelessly transmitted by the first transmitter, that is

representative of at least one of the two or more operating parameters; and

a remote subsystem, comprising:

a second receiver configured to receive the second signal;

a second processor in communication with the second receiver; and

a memory in communication with the second processor, the memory being

encoded with programming instructions executable by the second processor to

analyze the at least one of the two or more operating parameters.

28. The system of claim 27, wherein the analysis performed by the second processor is

diagnostic analysis.

29. The system of claim 27, wherein the analysis performed by the second processor is

prognostic analysis.

30. The system of claim 27, further comprising vehicle subsystems as recited in claim 27

on one or more additional vehicles, and wherein:

the second receiver receives a second signal from each of the vehicle subsystems; and

the programming instructions are further executable by the second processor to analyze at

least one operating parameter from each vehicle subsystem.

31. The system of claim 30, wherein the programming instructions are further executable

by the processor to perform composite analysis on data from a plurality of vehicles in

communication with the remote subsystem.

32. The system of claim 27, wherein the processing performed by the first processor is

diagnostic analysis.

33. The system of claim 27, wherein the processing performed by the first processor is

prognostic analysis.